

## ABSTRACT

[0056] An apparatus and associated methods to provide precision ranging measurements in an ultrawideband (UWB) wireless communication system are generally described. In this regard, according to one example embodiment, an innovative ranging agent is introduced that  
5 effectively computes one or more of the time of signal propagation, the difference in local clocks and frequency offsets to calculate an increasingly accurate estimate of the proximal distance between two or more devices in UWB communication.x